

# Digital Terrestrial Broadcasting Receiver for Free-To-Air & Nagravision Embedded

[ F1-4000T  
NA-4710T ]

User's Manual



The image on the front page is only applicable to F1-4000T models.

**HUMAX**  
your prime time

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# Safety

This STB has been manufactured to satisfy the international safety standards. Please read the following safety precautions carefully.

**MAINS SUPPLY** : 90 - 250V AC 50/60Hz

**OVERLOADING** : Do not overload a wall outlet, extension cord or adapter as this may result in fire electric shock.

**LIQUIDS** : The STB shall not be exposed to dripping or splashing and that no objects filled with liquids, such as base, shall be placed on the apparatus.

**CLEANING** : Disconnect the STB from the wall outlet before cleaning.  
Use a light damp cloth(no solvents) to dust the STB.

**VENTILATION** : The slots on top of the STB must be left uncovered to allow proper airflow to the unit.  
Do not stand the STB on soft furnishings or carpets.  
Do not expose the STB to direct sunlight or do not place it near a heater.  
Do not stack electronic equipments on top of the STB.

**ATTACHMENTS** : Do not use any unrecommended attachments as these may cause hazard or damage the STB.

**CONNECTION TO THE ANTENNA :**

: Disconnect the STB from the mains before connecting or disconnecting the cable from the antenna.  
FAILURE TO DO SO CAN DAMAGE THE ANTENNA.

**CONNECTION TO THE TV :**

: Disconnect the STB from the mains before connecting or disconnecting the cable from the antenna.  
FAILURE TO DO SO CAN DAMAGE THE TV.

**EARTHING** : The antenna cable **MUST BE EARTHED** to the system earth for the antenna. The earthing system must comply with SABS 061.

**LOCATION** : Place the STB indoor in order not to expose to lightening, rain or sunlight.



TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE.  
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol indicates "dangerous voltage" inside the product that presents a risk of electric shock or personal injury.



This symbol indicates important instructions accompanying the product.

## **Warning!**

Please do not insert metal or alien substance into the slots for the Modules and Smart Cards.  
In doing so can cause damage to the STB and reduce its life span.

# Copyright & Glossary

## CAUTION

To watch Pay Per View programmes, be sure to inform your STB dealer of the STB's and Smart card's serial numbers. So that they can pair your STB with your Smart card. Otherwise, you cannot watch the programmes because they are scrambled.

## NOTE

When the changed Network Information is sent, Nagravision realizes that the appropriate satellite/cable service information has been changed. And it will re-organize the service information based on the sent Network Information. The message "Network Information updated..." appears on the screen. It is automatically done when changing NIT. The manufacturer can't change it because it is provided by Nagravision. When the user watches it, the message may suddenly appear during AV playback and simultaneously updating will proceed. (This happens about once a year.) Since this is not an error in operating, do not turn off the power.

## Copyright

- **Nagravision is a registered trademark of Kudelski S.A.**
- **VIACCESS™ is a trademark of France Telecom.**
- **CryptoWorks(TM) is a trademark of Philips Electronics N.V.**
- **Irdeto is a trademark of Mindport BV.**
- **Conax is a trademark of Telenor Conax AS.**
- **"Dolby" and the double-D symbol are trademarks of Dolby Laboratories.**

## Warning

**HUMAX cannot be held responsible for any kind of problems caused by the use of unofficial software. The use of software versions other than HUMAX official software will void the manufacturer's warranty. It is advised that only the formal software released from HUMAX should be used in all HUMAX product range.**

## Glossary

- **Antenna**  
A device that collects and radiates electromagnetic waves.  
Includes a satellite dish and broadband antenna.
- **Forward Error Correction(FEC)**  
A system of error control for data transmission.
- **Frequency**  
The number of cycles or events per one second, which is expressed in the unit of Hertz(Hz).
- **Intermediate Frequency (IF)**  
A frequency to which a carrier frequency is shifted as an intermediate step in transmission or reception.
- **Packet Identifier (PID)**  
A set of numbers that identifies transport stream packets containing data from a single data stream.
- **Service**  
A channel to which a decoder or TV is tuned.

# Reference

## 1. Loop Through

If you have another analogue or digital STB and you wish to use the same RF Signal then you can connect it via the loop through. Connect one end of a RF cable to the TV/VCR on the STB and connect the other end to the RF(ANT) on your second STB.

## 2. Software Upgrade

HUMAX digital set-top box is a highly sophisticated product - incorporating one of the best software applications.

Whenever a problem is found with this software or, in fact, extra functions or enhanced applications are added, the software in the equipment has to be upgraded.

In order to maintain proper performance of the product, it is essential to have the most up to date software. The latest news and release of software versions may be found at HUMAX website - <http://www.humaxdigital.com>.

It is recommended that users register to HCSA (HUMAX Customer Service Area) and periodically check for the availability of software upgrade.

There are three methods to upgrade the software :

- (a) set-top box to set-top box download (copies the software of the main unit into slave unit);
- (b) pc to set-top box download (downloads the software directly from pc to the model requiring upgrade);
- (c) OTA over-the-air (downloads the software where the manufacturer reserves the right to decide when and where to release over the air).

Over The Air (OTA) is simply another alternative for downloading software versions.

However, the manufacturer reserves the right to decide when and where this software upgrade can take place by "beaming" latest software versions over the air.

SUSS (TM) is an official trademark and logo for HUMAX loader software to perform OTA.

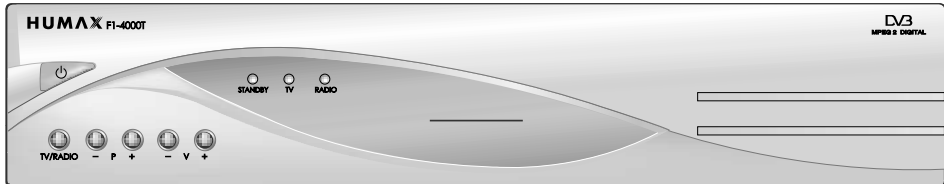
The software upgrade will only occur under the following circumstances:

- 1) the equipment should have appropriate loader software;
- 2) the manufacturer decides to release software downloading;
- 3) the equipment must be "tuned" properly to the OTA channel that the manufacturer uses.

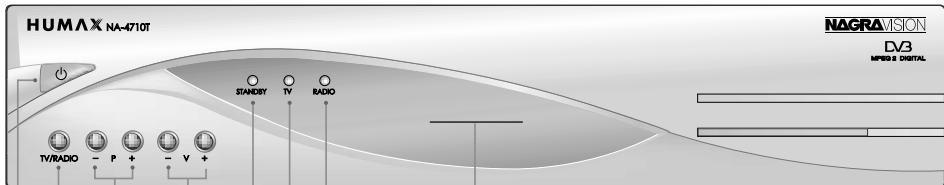
# STB Connections

## Front Panel

### ▪ F1-4000T Free-To-Air

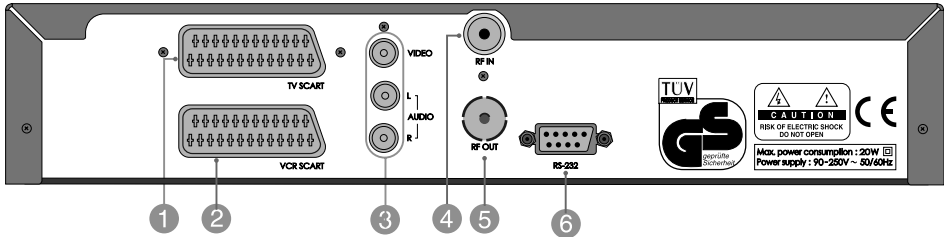


### ▪ NA-4710T 1 Smart card



- 1 STANDBY**  
Press to switch between Operation and Standby modes.
- 2 TV/RADIO**  
Press to switch between TV and Radio modes.
- 3 - p +**  
Use to change services down/up.
- 3 - v +**  
Use to change volume down/up.
- 5 STANDBY LED(RED)**  
Indicates that the STB is under standby.
- 6 TV LED(AMBER)**  
The LED lights on in TV mode.
- 7 RADIO LED(GREEN)**  
The LED lights on in RADIO mode.
- 8 DISPLAY**  
Shows service number, error messages, RCU commands and time in Standby mode.

## Rear Panel

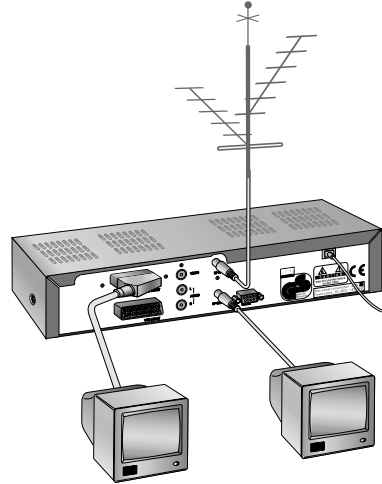


- 1 TV SCART**  
For the audio/video input of the TV.
- 2 VCR SCART**  
For the VCR.
- 3 AUDIO/VIDEO OUTPUT**  
Audio/video signal from your STB to VCR or TV.
- 4 ANTENNA**  
Use to connect a general Aerial Antenna and CABLE jacks to a ANTENNA input jack on the STB.
- 4 TV/VCR**  
Use to connect a RF signal from your STB to RF(ANT) input jack on your TV or VCR .
- 4 RS-232C**  
Use it when connecting to your PC.

# STB Connections

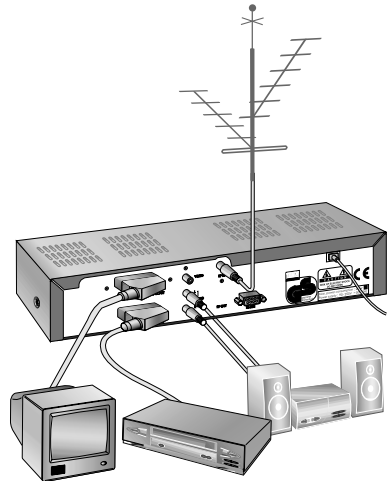
## Example 1

In this example a TV set is connected to the digital receiver. If possible the TV should be connected with the digital receiver through a Scart cable. If the TV doesn't have a Scart connection or if you want to connect a second TV to the digital receiver, the UHF output of the modulator may be used.



## Example 2

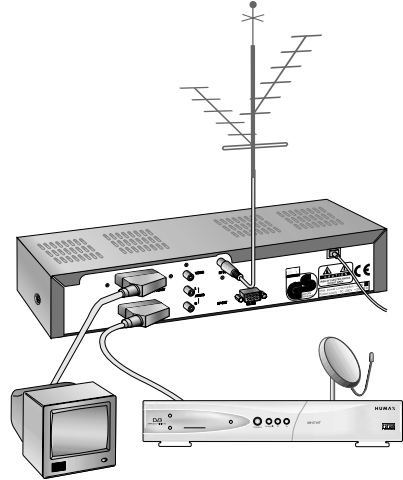
In example 2 a VCR and a hifi stereo components system are connected to the digital receiver in addition to the TV. The VCR should be connected through a Scart cable. In this example the hifi stereo components system is connected with the digital receiver through the analogue Cinch connections.





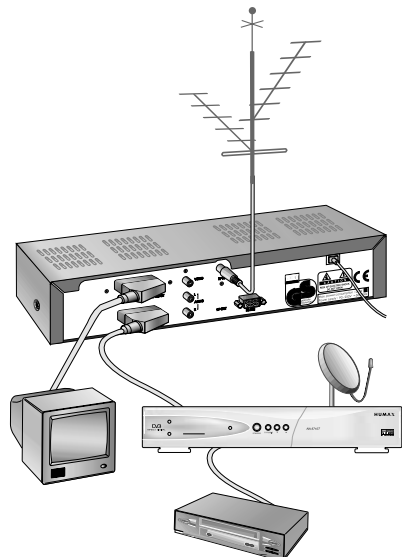
### Example 3

In this example the terrestrial digital receiver is operated together with the satellite receiver. Both of the receivers should be connected through a Scart cable. Plug the Scart cable of the satellite receiver into the VCR Scart of the DVB-T receiver. As soon as the satellite receiver is turned on, its audio and video signals will be looped through the terrestrial digital receiver.

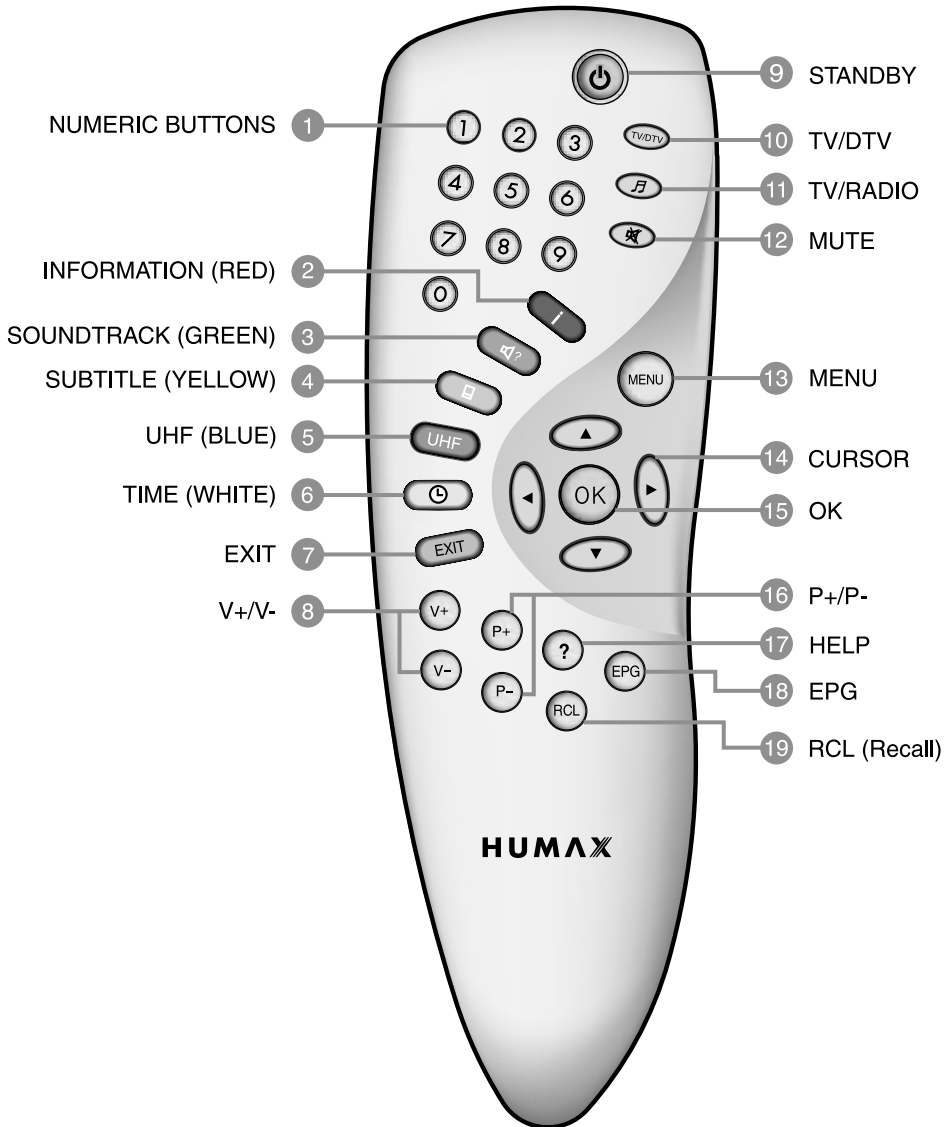


### Example 4

This pattern corresponds to example 3 (see above). A VCR was switched additionally to the configuration. Connect the VCR with the satellite receiver through a Scart cable. Plug the Scart cable of the VCR into the VCR or video Scart (if available) of the satellite receiver.



# Remote Control Unit



**1 NUMERIC BUTTONS**

Press to select a service, enter your PIN Code or numeric on the menu.

**2 INFORMATION (RED)**

Press to display the programme information box on the screen. And this button functions same as the RED button on the menus.

**3 SOUNDTRACK (GREEN)**

Press to display the soundtrack list for the current service. And this button functions same as the GREEN button on the menus.

**4 SUBTITLE (YELLOW)**

Press to display the subtitle language list for the current service. And this button functions same as the YELLOW button on the menus.

**5 UHF (BLUE)**

Press to set the UHF menu.  
This button functions same as the BLUE button on the menus.

**6 TIME (WHITE)**

Press to display the current time on the screen.  
Press to reserve services on the Information box or EPG. And this button functions same as the WHITE button on the menus.

**7 EXIT**

Press to return to the previous menu and screen.

**8 V+/V-**

Volume up/down buttons.  
Press to increase or decrease the volume.

**9 STANDBY**

Press to switch between Operation and Standby modes.

**10 TV/DTV**

Press to select the TV/DTV mode.

**11 TV/RADIO**

Press to select the TV/RADIO mode.

**12 MUTE**

Press to temporarily cut off the sound.

**13 MENU**

Press to display the Main Menu on the screen or return to the screen from a sub menu screen.

**14 CURSOR**

Press to move the highlight bar for selecting options on the menus.  
And this button is used to change services (up/down) and increase or decrease the audio volume.

**15 OK**

Press to display the service list.  
This button is used to select the item on the menus.

**16 P+/P-**

Programme up/down buttons.  
Press to tune to the next or previous service.  
Press to move up or down pages on the menus.

**17 HELP**

Press to display the help box on the screen.

**18 EPG**

Electronic Programme Guide button displays the TV/Radio programme guide.

**19 RCL (Recall)**


Press to select the service that was previously viewed.

• **Please note** : The design of Remote Control Unit may be changed without notice in advance.

# Guide of Functions




## Information Box (I-Plate)

The details of service part and event part are automatically displayed on the I-Plate when pressing the **i** button(  ) or changing services.

I-Plate is divided into service part and event part.

## SERVICE-PART (Left side of the box)

SERVICE PART consists of the following items:

- I-Plate icon, Current time and Dolby Digital symbol
- Service name, Service number,  icons
- Subtitle, Teletext, Scrambling service symbol  
(These are automatically displayed when the broadcasting station provides appropriate information.)
- Signal quality bar

## EVENT-PART (Right side of the box)

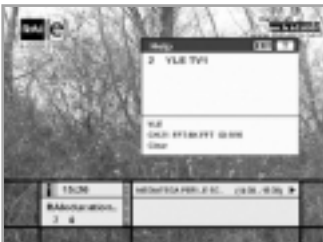
EVENT PART consists of the following items:


- Event name, Event duration time
- Description text of event, State of reserved event

Event Part shows the current and next event information.



▶ button : Use to move from the current event information to the next event information.

◀ button : Use to move from the next event information to the current event information.



When the **HELP**(  )button is pressed under I-Plate display and there are no detailed event informations in the I-Plate, the Help window will appear on the screen.

The Help window shows the current Network information, including: Satellite Name, Frequency, Polarisation, Symbol Rate, FEC...

The detailed information for the event can be displayed by pressing the **HELP**(  )button in the I-Plate with event data displaying mode. You can reserve the programme in the event data display mode by using the **WHITE**(  )button.

You can reset timer programme Once, Daily or Weekly mode.

When you release the timer programme mode, then you will be asked to confirm the action.



## Changing Services

**To change services, do in the following sequence;**

1. Press the **NUMERIC** buttons(0~9) on the remote control unit.
2. Press the **P+ / P-** buttons or **▲ / ▼** buttons.

Or press the **RECALL**(**RCL**), **Service-list**(**OK**), **EPG**(**EPG**) mode button.

To switch between TV and Radio services, press the **TV/Radio** (**B**) button.

To select the previous viewed Service, press the **RECALL**(**RCL**) button.

## Volume Control

To adjust the volume level, use the **V+ / V-** buttons or **◀ / ▶** buttons.

To temporarily stop the volume, press the **MUTE**(**M**) button.

To cancel mute, press the **MUTE**(**M**) button again or press the **V+ / V-** buttons or **◀ / ▶** buttons.



## Soundtrack

When you want to change the audio language of current service, press the **GREEN**(**GREEN**) button firstly.

The on-screen menu is displayed on the top to left side of the screen.

**To change the audio language:**


1. **◀ / ▶** buttons : Use to select the audio on the left, right or both.
2. **▲ / ▼** buttons : Use to select the audio language you want.
3. **OK** , **EXIT** button : When this button is pressed, the Soundtrack OSD will disappear keeping the selected Soundtrack language constant.

When the current service is switched, the audio language returns to the audio language that was selected in previous service. If the returned audio language is invalid, the audio language that you selected from the audio language menu has the priority of playback. Soundtracks broadcast in Dolby Digital are indicated by Dolby Digital symbols either side of the respective language selection in the menu. By selecting such a soundtrack the Dolby Digital audio will be output by the optical S/PDIF on the STB. This can be decoded by an external Dolby Digital television or amplifier, for example.




# Guide of Functions




## Subtitle


When the current broadcasting programme provides subtitle, press the **SUBTITLE** (  ) button to see the current subtitle language list.

### To change the subtitle language:

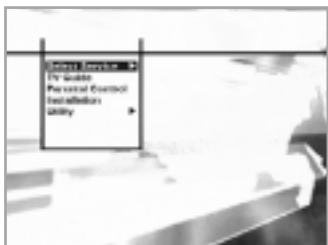
1. Use the  /  buttons to select a Subtitle language you want.
2. Press the  button and the selected language is highlighted and then the Subtitle Language you want is displayed on the screen.

Press the  button to cancel the Subtitle mode.

## Teletext

Use your TV Remote Control Unit to control the Teletext service. The teletext button doesn't exist on the STB Remote Control Unit. When the service supports Teletext, the Teletext icon (  ) is displayed on the I-plate.

# Guide of Main Menu



## 1. Select Service

The select service displays the required service list which can be viewed in Simple or Advanced mode.

## 2. TV Guide

Your STB has an Electronic Programme Guide (EPG) to help you navigate through all the possible viewing options. The TV Guide supplies information such as programme listings and start and end times for all available services. In addition, detailed information about the programme listings and start and end times for all available services. In addition, detailed information about the programme is often available in the EPG (the availability and amount of these programme details will vary, depending on the particular broadcaster).

## 3. Parental Control

Access to services and programmes is controlled by a PIN Code (i.e., a 4-digit secret code that is defined by the user). The very first time you attempt to lock all services (or lock programmes by ratings), the on-screen menu will instruct you to assign a PIN Code (Later on, if necessary, you can change it).

## 4. Installation

The Installation mode allows you to have the information of setting services and newly set services (language, time, organise, search,..). Furthermore, you can recognize the states of hardware and software versions and signals from your STB.

## 5. Utility

This menu provides Calendar and Biorhythm.

# Guide of Main Menu



## 1. Select Service

To select the desired in the service list, you should firstly display the service list using **OK** button. Use **▲/▼/◀/▶** buttons to select a service and press **OK** button. Also use **P+ / P-** buttons to select a service directly in the service list.

The contents of service list are as follows:

### Simple Service List

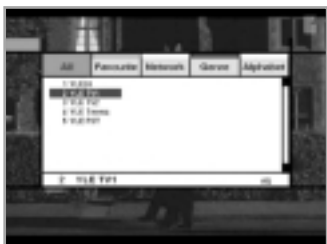
1. Use the **▲/▼** buttons to select "Select Service" from the Main Menu and press the **OK** button.
2. Use the **▲/▼** buttons to select "Simple" from the Main Menu and press the **OK** button.
3. Then the simple service list(max. 10 services) will appear on the screen.

### Advanced Service List

The advanced service list shows thirty services. This list is similar to the Simple service list except that it shows thirty services and is apart from the Network and Genre list that displays twenty services. Use the following colour buttons to list various service lists:

**The colour button corresponds the following Service List.**

- **RED** (**I**) button - service list All
- **GREEN** (**?**) button - Favourite
- **YELLOW** (**□**) button - Network
- **BLUE** (**UHF**) button - Genre
- **WHITE** (**⊖**) button - service list by Alphabetical order



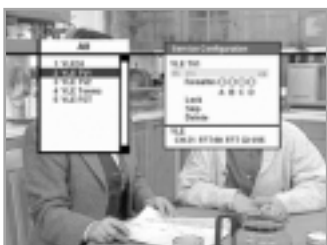
## Service Configuration

**To change the attributes of a service**

1. Use the **▲/▼/◀/▶** buttons to move a service you want to change in the Service List.
2. Press the **MENU** (**MENU**) button.
3. Use the **▲/▼** buttons to move to an item(such as genre, favourite, lock, skip, delete) you want on the Service Configuration screen.
4. Use the **◀/▶** buttons to select. Press the **OK** button to complete.

## Service All


1. To display the Service All, press the **OK** button  
Use **RED** (**I**) button to select the service All list.
2. Select the desired service by using the **▲/▼/◀/▶** buttons.
3. Press the **OK** button to view the selected service.  
The service list provides you the Simple mode and Advanced mode. The right side scroll-bar of the screen displays the location of the selected service in relation to All services.  
Press the **RED** (**I**) button to toggle between Simple mode and Advanced mode.






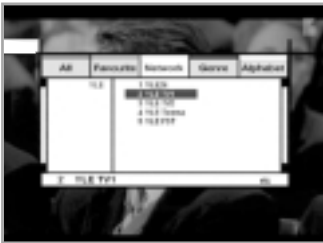


### Service Favourite



1. Press the **GREEN**() button on the remote control unit to select the Favourite service list.

**Note** : The groups are labeled in four different alphabet characters (A,B,C,D).

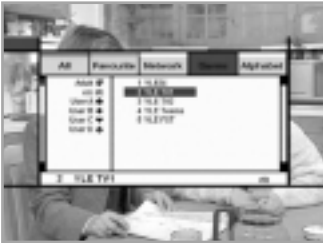
2. Use the **▲/▼** buttons to select a favourite group that you want.
3. Press the **GREEN**() button to toggle group and service list.





### Service Network

1. Press the **YELLOW**() button on the remote control unit to select the Network service list.
2. Use the **▲/▼/◀/▶** buttons to select a service
3. Press the **YELLOW**() button to toggle provider and service list.

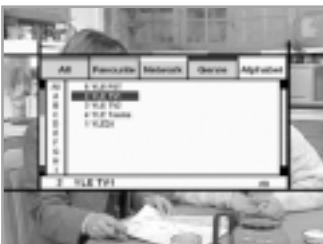
**Note** : 1. The provider name is displayed on the left window and the provider's services are displayed on the right window.  
2. The scroll bar on left of the screen shows the location of the cursor in the Network. The scroll bar on right of the screen shows the location of the service from the selected Network.





### Service Genre

1. Press the **BLUE**() button on the remote control unit to select the Genre service list.
2. Use the **▲/▼/◀/▶** buttons to select a service.
3. Press the **BLUE**() button to toggle Genre and service list.

**Note** : The scroll bar on left of the screen shows the location of the cursor in the selected Genre. The scroll bar on right of the screen shows the location of the service.



### Service Alphabet Order

1. Press the **WHITE**() button on the remote control unit to select the Alphabet service list.
2. Use the **▲/▼/◀/▶** buttons to select a service.
3. Press the **WHITE**() button to toggle Alphabet and service list.


**Note** : The scroll bar on left of the screen shows the location of the cursor in the Alphabet. The scroll bar on right side of the screen shows the location of the selected Alphabet service.

# Guide of Main Menu


## 2. TV Guide

You can watch a programme being shown and reserve it in the TV Guide mode.

### To enter the TV Guide mode





Press the **EPG**() button on the remote control unit or select the TV Guide on the Main Menu.

### To select the TV/Radio Guide

Press the **TV/Radio**() button on the remote control unit and TV Guide will be switched to the Radio Guide.

TV Guide mode includes four different modes.

To select each mode, use the following buttons:

- **RED** () button : Use to display the current and next programme list.
- **GREEN** () button : Use to display the programme list for one-week.
- **YELLOW**() button : Use to display the reserved programme list.
- **BLUE** () button : Use to display the simple TV Guide list. (Quick mode)



### Now/Next mode



Show the informations of the programmes that are played now or will be played next time.

This mode consists of the service name, event name, event duration time, current time and on-screen-display window.

### To watch a programme you want through the display window :

- Use the **P+**/**P-** buttons to select a programme you want. The selected service will appear on the right display window.
- Use the **▲**/**▼** buttons to select a programme you want. And then press the **OK** button on the remote control unit. The selected service will appear on the right display window. The selected OSD will be highlighted every time the cursor moves.

### To reserve a programme you want :

- Select a programme you want by using the **P+**/**P-** buttons or **▲**/**▼** buttons. And then press the **WHITE**() button. Press the **◀**/**▶** buttons to watch the programme of previous page or the programme of next page. Press the **YELLOW**() button to watch the Reserved programme list.



### Weekly mode

Shows the information of programmes that will be played for a week. Select a day you want using the ◀/▶ buttons. To watch and reserve a programme you want, do the same steps with the Now/Next mode.



### Reserved mode

Shows the programme lists that you have already reserved on the TV Guide or Information box. Maximum eight programmes can be reserved. This programme list includes service name, date, duration time, reservation mode and event name. To cancel the Reserved service, select a programme you want to cancel using the ▲/▼ buttons and then press the **WHITE**(Ⓞ) button.



### Quick mode

Shows a simple TV Guide like an Information box. This mode shows in the A/V playback mode.

- Red vertical line : Indicates the current time.
- Black/white bar : Shows the preceding state of programme.
- Time range of bar : This consists of three blocks by 30 minutes per block.

# Guide of Main Menu



## 3. Parental Control

You can set a parental guidance rating to each programme in this mode.

1. When the **OK** button is pressed after selecting the highlighted parental control on the initial menu screen, a display window for entering the PIN code will appear on the centre of screen.  
\*\* The default PIN code is **0000**.
2. Enter the PIN code on the display window.  
(If any problem occurs when entering a PIN code, you cannot switch to the next mode.)
3. Set the parental guidance rating of highlighted censorship classification.  
The parental level is given as age-based numbers :  
no block, 6, 10, 14, 18 and total block. Enter the PIN code to unlock or lock programmes.
4. To change your PIN code:
  - Select the highlighted Old PIN code using the **▲/▼** buttons and then enter your Old PIN code.
  - Enter a New PIN code in the highlighted New PIN code using the **▲/▼** buttons.
  - To verify the New PIN code, re-enter a New PIN code in the highlighted Verify Changed PIN code.
5. When the entered PIN code is correct, then all settings are completed.  
(If the PIN code is wrong, the message "PIN code mismatch" will be displayed on the display window. When the **OK** button is pressed at this time, the Old PIN code is valid and the cursor is located in the first position of this menu.)

## 4. Installation

This mode allows you to customise, add a new service and displays the state of the STB. Enter the submenus after selecting the Installation mode in the Main Menu.

### 4-1. System Setting

The System Setting mode supports the STB internal settings according to the connection of the receiver and external units. This mode includes Language Setting, Time Setting, A/V Output Setting, UHF Tuning and Other Settings.



#### Language Setting

Select the language for menu, audio or subtitle.

1. Select the highlighted language setting using the ▲/▼ buttons in the system setting mode and then press the **OK** button.
2. Select the highlighted Menu(or Audio, Subtitle) Language and press the ◀/▶ buttons and the language list will be displayed.
3. Use the ▲/▼ buttons to move to a language you want and then press the **OK** button to finish setting.



#### Menu Language

Select a language for the menu or banner OSD in this mode. You can choose the language from a selection of English and German.

When a broadcasting information (event) is transmitted, the selected Menu Language will be applied.



#### Audio Language

Select the default language for audio when changing services. If you change the current service, your STB will initially select the previously memorised Audio Language. If the Audio Language of current service is not provided, at this time, you should reselect a language on the Audio Language menu.

Languages provided:

Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Norwegian, Portuguese, Rumanian, Russian, Spanish, Swedish, Turkish and more.

If no language is provided, then the default language of current service will be automatically selected.

#### Subtitle Language

Select the default language for subtitle when changing services. Language provided: Danish, English, Finnish, French, German, Greek, Hungarian, Italian, Norwegian, Portuguese, Spanish, Swedish and more.

# Guide of Main Menu



## Time Setting

You can set the Current Time and Wakeup Time in this mode. Furthermore, the Service Number in the Wakeup mode and Sleep Time (standby mode) can be set. When a VCR is connected, recording can be automatically done according to Wakeup/Sleep Time Setting.

## Current Time

To set the Current Time, enter the Offset value using the standardised information of current service area. The time setting will be used as the standardised time for the I-Plate, TV Guide, Wakeup and Sleep Timer.

## Time Offset

Current Time is based on TDT (Time and Data Table) at the stream of the current service.

## Timer

You can select nine kinds of Timer like 1,2.....8 and Disabled. If you select "Disabled", then the other timers will not work. Press the **OK** button at timer option to display the Timer table. The Timer determines the on/off time and can also be used for VCR recording.

## Timer Mode

Wakeup/Sleep timer determines the Timer Mode.

- Once : The timer programming is applied only once.
- Daily : The timer recording is applied everyday repeatedly.
- Weekly : The timer recording is applied weekly.  
(Set one day in a week).

Use the **◀/▶** buttons to select the type of timer programming.

## Wakeup Time

Select the time when STB is turned on.

Use the **NUMERIC** buttons(0~9) on the remote control unit to enter your Wakeup Time.

## Wakeup Service No.

Use the **◀/▶** buttons to set the service number provided for the set Wakeup Time.

Use the **TV/Radio**(**Ⓟ**) button on the remote control unit to toggle TV/Radio service.

## Service Name

The Service Name that has been determined by the Wakeup Service No. will be shown.

## Sleep Time

Depending on Time Setting, select the time when STB is turned off.



## **A/V Output Setting**

### **Video Output (CVBS/S-Video/RGB)**

Set the video mode for the TV SCART output.

### **Audio Output**

Set the audio mode which is output from the TV SCART and RCA/Cinch Jack. (Stereo/Mono)

### **Screen Mode**

Select the aspect ratio of TV which is connected to STB (4:3 or 16:9).

### **Display Format**

Select the format which the video is to be displayed on screen. When your TV set is 4:3 and video source is 16:9, STB will display in Letter-box or Centre mode as selected. When your TV set is 16:9 and video source is 4:3, STB will display in the Pillar-box or Full mode as selected.

# Guide of Main Menu



## UHF Tuning

You select the STB output by using the UHF channel.

## Channel

Select an UHF channel. The range of channels and frequency value are different for each PAL Standard:

PAL I/G for Europe	: CH21 ~ CH69
PAL B for Europe/Australia	: CH28 ~ CH69
PAL D for China	: CH13 ~ CH62
PAL K for Russia	: CH21 ~ CH69

## PAL Standard

Select a PAL Standard according to the above range of channels.

## Offset

Adjust the fine tuning value. The Offset ranges from -4 to +4 and each Offset represents 1MHz.





### Other Setting

Select the OSD Transparency, Information Box Display Time and so on.

### OSD Transparency

Select the OSD Transparent type. It affects Information box, Soundtrack, Subtitle, Service list, Time and Quick mode of TV Guide. Use the ◀/▶ buttons to toggle transparent, opaque, 20%, 40%, 60% and 80%.

### Info. Box Display Time

Set the display duration of Information box displayed on the screen after changing services. The time ranges from 0 to 20 seconds.

### Menu Background

Set the type of background for the menu to be displayed on.

### Changing to Reserved Service

When the reserved time has come during the view of services:

- **Manual Mode**

This mode shows the message "A reserved event has started on another service. Press OK to view the reserved service. Press EXIT to ignore reserved service. (will automatically change after 10 seconds.)" And ask the presence of change and then makes a change.

- **Auto Mode**

The current service will be automatically changed to the time-reserved service.

# Guide of Main Menu



## 4-2. Service Organising

This menu gives users access to options that allow them to organise their TV Services, Radio Services and Networks.

\*\* The default PIN code is **0000** .

### Organise TV Services

#### Organise All Services

This mode allows users to Delete, Move, Lock, Skip and Rename TV Services.



#### • Delete

1. Press the **RED**(**I**) button to delete unwanted services.
2. Highlight the services that you want to delete in grey.
3. Press the **OK** button to confirm.
4. Press the **EXIT** button to cancel the deletion.

#### • Move

1. Press the **GREEN**(**↔**) button to move the service to where you want to locate. Then, the icon(**◆**) will be displayed in front of the service number.
2. Use the **▲/▼/◀/▶** buttons to select a new location.
3. Press the **OK** button to fix the location.
4. Press the **EXIT** button to return to the original location.

#### • Lock

1. Press the **YELLOW**(**🔒**) button to lock services.  
Then, the symbol "**🔒**" will be displayed at the right side of the service name.
2. Enter the PIN code to view the locked services.

#### • Skip

1. Press the **BLUE**(**UHF**) button to skip services.  
Then, the symbol "**👁**" will be displayed at the right side of the service name.
2. Use **NUMERIC** buttons(0~9), service list or **EPG** button to view the skipped services when selecting channels.

**Note** : You can't view the skipped services by using **P+**/**P-** buttons.



#### • Rename

1. Press the **WHITE** (Ⓞ) button to change the service name.  
Then, the keyboard image will be displayed on the screen.
2. Key in the new service name.

**You can use the four direction keys to move or select the services.**

- ▲ : to move the previous service
- ▼ : to move the next service
- ◀ : to move back by 10 services
- ▶ : to move forwards by 10 services

**Note :** The box between service list and the description of the colour buttons offers the brief information of a service where the cursor is located.



#### Organise Favourite A~D

Each of TV and Radio has four Favourite groups.  
Each Favourite group contains up to 100 services.  
Delete, Move, Lock, Skip or Rename each TV service in a Favourite TV group and re-group them into your Favourite TV group.  
This mode has the same operating methods as “organise all services”.

- When you delete a service in the Favourite group, it will be available again on the All TV service list. This allows the service to be removed from the Favourite group.
- You can move the service only within the Favourite group.
- Coloured keys are available when the cursor is located in the middle window.  
(Except when the middle window is disabled(grey).)

#### To select the Favourite group;

1. Use the ◀ button to move the cursor to “Gr.”-plate(left).
2. Select the wanted favourite group.

#### To group the services into Favourites;

1. Use the ▶ button to move the cursor to “Services”-plate(right).
2. Select the service you want to group into Favourites.
3. Press the (OK) button.
4. Use the ◀ button to move the cursor to “Favourites”-plate(left).
5. Press the (OK) button to save the selected group.

**Note :** 1. Use the ◀/▶ buttons to move the cursor.  
2. Use the (P-)/(P+) buttons to select the previous or next page.

# Guide of Main Menu



## Organise Service Genre

The Organise Service Genre feature allows the user to Delete/ Lock/Skip/Rename a service in the selected Genre.

Available genre : Movie, News, Show, Sports, Children, Music, Art, Education, etc.



The colour buttons function same as ones for Organise All services except the following differences:

- When you delete a service in the selected genre, it will be available again on the All TV services list at the right side. At that time, the genre for the deleted service becomes "etc".
- You can move the service only in the selected genre.
- Coloured buttons are available when the cursor is located in the middle window.

### To select the Genre;

1. Use the ◀ button to move the cursor to "Gr."-plate(left).
2. Select the wanted genre.

### To group the services into a Genre;

1. Use the ▶ button to move the cursor to "Services"- plate(right).
2. Select the service you want to group into Genre.
3. Press the  button.
4. Use the ◀ button to move the cursor to "Genre"-plate(left).
5. Press the  button to save the selected group.

**Note** : 1. Use the ◀/▶ buttons to move the cursor.

2. Use the /  buttons to select the previous or next page.



### Organise Radio Services

The Organise Radio Services functions same as TV Services except that it uses Radio Services.

You can delete or move Radio Services and change the attributes of them.

### Organise All Services

The Organise All Services lets the user Delete, Move, Lock, Skip or Rename Radio services on the All Radio services list.



### Organise Favourite A-D

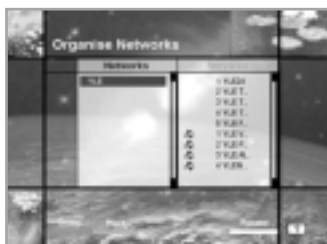
The Organise Favourite A-D lets the user Delete, Move, Lock, Skip or Rename Radio Services from the Favourite Radio Services and group into a new Favourite Radio Services.

The Radio Services are grouped into a Favourite in the same way as the TV Services(refer to page GB20).

### Organise Service Genre

The Organise Service Genre lets the user Delete, Lock, Skip or Rename Radio Services and group into Radio Service Genres. Radio Genres include : Pop, Rock, Country, Classic, Jazz, Folk, News, Show, Sports, Education, User A-D, etc.

The Radio Services are grouped into a Genre in the same way as the TV Services (refer to page GB21).



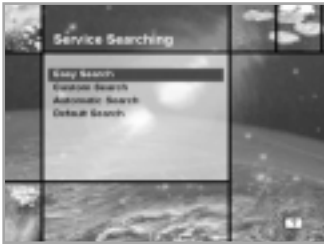
### Organise Networks

You can edit services using the network unit.

- The provider names are displayed on the left side of screen, and the TV/Radio Services included in the highlighted Network are displayed on the right side of screen. Only the Delete, Move, Rename Function can be used in this mode.
- When TV/Radio Services are too many to be displayed, use the ► button to move the cursor to the right window and use the ▲/▼ and (P+)/(P-) buttons to move the cursor to the next list.

When the number of services is under 10, the scroll bar is not displayed. In Radio Service icon( 🎵 ) is marked in front of service number.

# Guide of Main Menu



## 4-3. Service Searching

A service is transmitted in a transport stream. To watch the service, all services in the transport stream should be searched and stored in this menu. The proper information to search the stream is provided by the network operator. Please contact your installer or the network operator.

\*\* The default PIN code is **0000** .



### Easy Search

The services can be searched with minimal information in this menu, "Easy Search". But it takes more time, if the parameters are set as "Auto". To search the services quickly, please give proper information for each items.

#### Channel

Select the number of VHF/UHF channel, in which the transport stream is transmitted by using the ◀/▶ buttons or the **NUMERIC** buttons(0~9). If the number is not correct, STB will fail to search any service.

#### Mode

Select the proper item within "2K FFT", "8K FFT" and "Auto" by using the ◀/▶ buttons. If the information is not known, then "Auto" can be selected. But this takes slightly longer time if "Auto" is selected.

#### Guard Interval

Select the proper item within "1/4", "1/8", "1/16", "1/32" and "Auto" by using the ◀/▶ buttons. If the information is not known, then "Auto" can be selected. But this takes slightly longer time.

#### Hierarchy

Select the proper item within "None", "alpha=1", "alpha=2", "alpha=4" and "Auto" by using the ◀/▶ buttons. If the information is not know, then "Auto" can be selected. But this takes longer time.

#### Network Search

Select the option "YES" to search all services in the network. Then, after STB succeeds to lock to the signal, STB will get proper information on the services in the other channels and stores the information automatically. If the network operator does not transmit proper information in the default channel, STB can not search all services. It is required to search for all channels manually.



## Custom Search

The menu, “Custom Search” operates similar as the menu “Easy Search”, however more parameters are required to search the services. Select proper items as follows. To get proper information, please contact your installer or the network operator.

### Frequency

Enter the exact frequency (kHz) of the channel, in which a transport stream is transmitted.

### Mode

Select the proper item within “2K FFT”, “8K FFT” and “Auto” by using the ◀/▶ buttons. If the information is not known, then “Auto” can be selected. But this takes slightly longer time if “Auto” is selected.

### Guard Interval

Select the proper item within “1/4”, “1/8”, “1/16”, “1/32” and “Auto” by using the ◀/▶ buttons. If the information is not known, then “Auto” can be selected. But this takes slightly longer time.

### Hierarchy

Select the proper item within “None”, “alpha=1”, “alpha=2”, “alpha=4” and “auto” by using the ◀/▶ buttons. If the information is not known, then “Auto” can be selected. But this takes longer time.

### Constellation

Select the proper item within “QPSK”, “16-QAM”, “64-QAM” and “Auto” by using the ◀/▶ buttons.

### Stream

Select the proper item within “HP”, “LP” and “Auto”. This item is deactivated when Hierarchy is “Auto” or “None”.

### Code Rate

Select the proper item within “1/2”, “2/3”, “3/4”, “5/6”, “7/8” and “Auto” by using the ◀/▶ buttons. “Auto” is recommended, if Hierarchy is set as “Auto”.

### Frequency Offset

Select the proper item within “No Offset”, “+1/6 MHz”, “-1/6 MHz” and “Auto” by using the ◀/▶ buttons. “Auto” is recommended.

# Guide of Main Menu


## Network Search

Select the option "YES" to search all services in the network. Then, after STB succeeds to lock to the signal, STB will get proper information on the services in the other channels and stores the information automatically. If the network operator does not transmit proper information in the default channel, STB can not search all services. It is required to search for all channels manually.


## Automatic Search

The menu "Automatic Search" is the easiest method to store new stations. Proceed as follows in order to start the Automatic Search:

### Start Channel

Set the lowest channel in your area by using the ◀/▶ buttons. Press the  button to start the search.

### End Channel

Enter the highest channel by using the ◀/▶ buttons. Press the  button to start the search.

## Default Search

The Default Search searches the services referring to the predefined channel list. The channel list can be chosen according to the region where the search is performed.

If the region is chosen in the menu, the channels are automatically scanned to search services.

**Note :** The Default Search deletes all stored services.



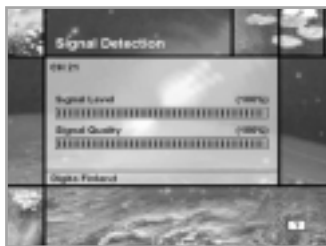




## 4-4. Status

### STB Status

Displays the information of H/W Version, S/W Version and Loader Version of STB and so on.



### Signal Detection

Shows the Signal Level(AGC level) and Signal Quality(BER) of the current service and is help to the initial antenna setting.



### STB Upgrade

You can download and upgrade the software of this STB via Transmitting station when the software of new version is released. Do not turn off the STB during downloading. When the power is switched OFF, turn on the STB and the process will be continued.

# Guide of Main Menu



## 4-5. Conditional Access(For Nagravision Embedded)

This menu allows the user to view the information on the Smart card and Nagravision Conditional Access system such as version and serial number of Smart card.

- F1-4000T models are not applicable.

### PPV purchase list

If you purchased events in advance, the entitlements of Pay Per View events will be displayed. (ID, event name, service name, start time, status and cost)

### Credit information

Displays the Credit information. (ID, credit and status)

### System information

Displays the System information.

(Smart card serial number, IRD serial number, Smart card version, Smart card revision, Conditional Access software version, Conditional Access software revision.)



## 5. Utility

STB supports additional functions such as Calendar and Biorhythm.

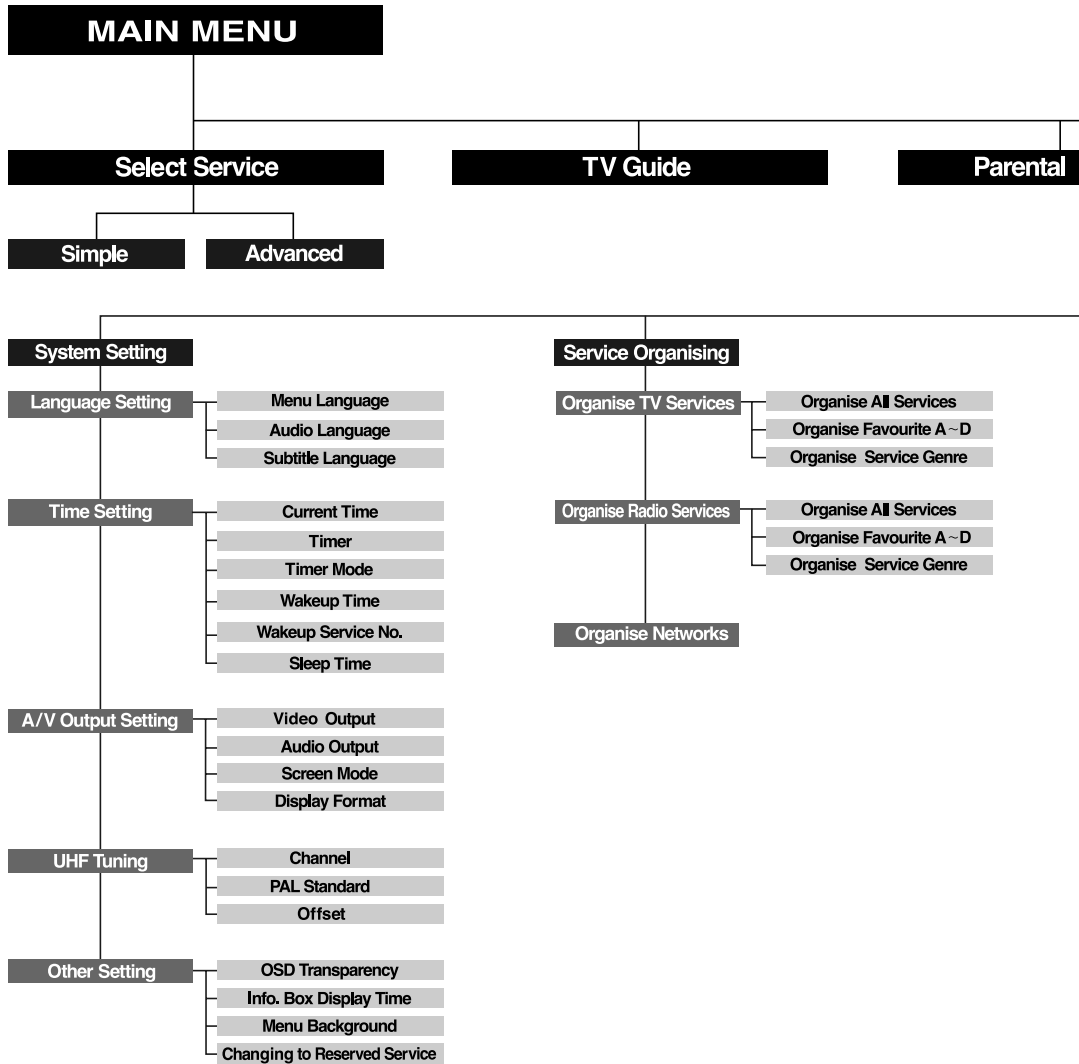
At the Biorhythm use the ▲/▼/◀/▶ buttons to adjust your birth year and date to see your current biorhythm status.

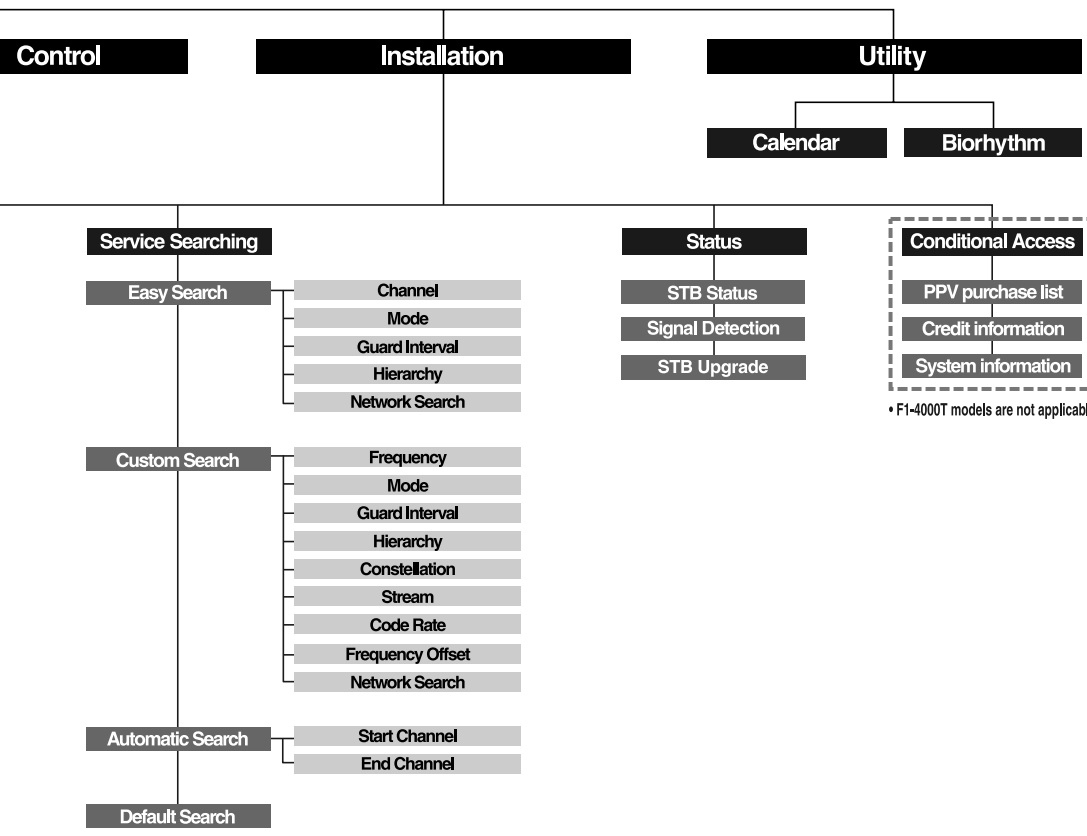


# Troubleshooting Guide

Problem	Solution
<b>About STB</b>	
Does not display any message on the front panel or STB has no power.	Check the main power cable and check that it is plugged into a suitable power outlet. Check you have switch the STB main power switch ON at the rear of the STB. Check whether STB is in Standby mode.
No Picture	Ensure that the STB is switched on (see above). Check the video output port (SCART & RCA Jack) is firmly connected to the TV or VCR. If you are using the RF Output, check that the RF Lead is connected firmly to the STB and TV/VCR. Check that you have selected the correct channel or Video Output on your TV. If you are using the RF Output, check that you have correctly tuned the UHF channel of the STB or TV. Check the brightness level of the TV.
Poor picture quality	See "No Picture" above. Check the signal level, if this is low then try adjusting of your antenna.
No Sound	See "No Picture" above. Check the volume level of the TV and STB. Check the Mute status of the TV and STB.
Remote Control does not operate	Point remote control directly towards the STB. Check and replace batteries.
<b>On-Screen Error Messages</b>	
No or Bad Signal	Check the Antenna - replace Antenna if necessary. Check the cable from the Antenna. Check the "Signal Level" and the "Signal Quality" in the Signal Detection menu.
Service is not running or scrambled / No access to the service slot.	Check whether the Common Interface module and Smart card are correctly inserted. Check whether the Common Interface module and Smart card is appropriate for the selected service.
Please check the card / No right for this service / No smart card in slot and please insert your card. (F1-4000T models are not applicable.)	Check that the Smart card is inserted correctly. Check the Smart card is appropriate for the selected service. Check the subscription rights of the Smart card.
<b>Time Display</b>	
The front panel does not display the time.	Make sure you have switched on the STB. Switch the STB on and tune to a service to allow the STB to receive the time sent with the signal by the service provider. Front panel will only display the time in Standby mode.
Time displayed on the front panel is incorrect.	Adjust the time in the Time Setting menu.
<b>Service Search</b>	
"No Signal" in Manual Search	Check the "Signal Level" and the "Signal Quality" in the Signal Detection menu. Check the Antenna - replace Antenna if necessary. Check the cable from the Antenna.
<b>Front Panel Error Messages</b>	
E - d [ : Incorrect data block(CRC-16)	Try switching STB power Off and On.
E - i d E - r d : Invalid system ID	Check whether the system ID is different for Software and STB.
E - U E : UART RX/TX time out	Try switching STB power Off and On.

# Menu Map





• F1-4000T models are not applicable.

# Specification

## Conditional Access Interface

Nagravision Embedded	1 Slot Smart card
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- F1-4000T models are not applicable.

## Tuner & Channel

Input Connector	IEC 169-2, Female
Input Channel	VHF/UHF
Input RF Power Level	-70 dBm ~ -20 dBm
Demodulation	OFDM
Mode	2 K, 8 K and Auto
FEC Decode	1/2, 2/3, 3/4, 5/6, 7/8 and Auto
Guard Interval	1/4, 1/8, 1/16, 1/32 and Auto

## MPEG Transport Stream A/V Decoding

Transport Stream	MPEG-2 ISO/IEC 13818 Transport stream Specification
Profile Level	MPEG-2 MP@ML
Input Rate	15 Mbit/s Max
Aspect Ratio	4:3, 16:9
Video Resolution	720 x 576
Audio Decoding	MPEG/MusiCam Layer I & II
Audio Mode	Single channel/Dual channel/Joint stereo/Stereo
Sampling	32, 44.1 and 48 KHz

## Memory

Main Processor	TMIPS R3930(81 MHz)
Flash Memory	2 Mbyte(F1-4000T)      3 Mbyte(NA-4710T)
Graphic(MPEG) & System DRAM	4 Mbyte

Data rate decides the picture quality of digital TV programmes.

Data rate of about 5-6 Mbit/s coincides with the picture quality of a analog TV programme.

## A/V & Data In/Out

TV SCART	Video Output(CVBS, S-Video, RGB) Audio Output (Resolution : 20 bits DAC, Max. 2 Vrms)
VCR SCART	Video Output(CVBS) Video Input(CVBS, S-Video, RGB) Audio Output(Resolution : 20 bits DAC, Max. 1 Vrms(fixed))
VIDEO	RCA/Cinch, Video Output(CVBS)
AUDIO R/L	RCA/Cinch Volume and Mute Control (Resolution : 20 bits DAC, Max. 2 Vrms)
RS-232C	Transfer rate Max. 115Kbps, 9pin D-sub Type

## RF-Modulator

RF/Loop Through Output	IEC, Male
Frequency	470 - 862 MHz
Output Channel	CH21-69 for UHF Modulator
TV Standard	PAL I/G/B/D/K selectable by Menu setting
Preset Channel	CH36 (or TBD). Software changable by Menu

## Power Supply

Input Voltage	AC 90 - 250 V, 50/60 Hz (SMPS type)
Type	SMPS
Power Consumption	Max. 20 W
Standby Power	≤ 11W
Protection	Separate internal fuse. The input shall have lightning Protection

## Physical Specification

Size (W x H x D)	310 x 60 x 235 mm
Weight (Net)	Around 2.2 kg
Operating Temp	0°C to + 45°C
Storage Temp	-10°C to + 70°C
Storage Humidity	5% ~ 95% RH (Non-Condensing)

- **Please note** : The specification of the STB may be changed without notice in advance.

